

# A Review on Herbal Anti-Dandruff Formulation

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## **Abstract**

One issue that affects the scalp is dandruff. It occurs when the scalp's skin becomes flaky and irritated. The flakes that appear in the hair and on the scalp are another characteristic of dandruff. Malassezia species are a type of fungus that frequently causes this issue. Inflammation and excessive oil on the scalp are also contributing factors.

Selenium sulfide, zinc pyrithione, and ketoconazole are common components of dandruff treatments. However, the scalp may become dry and irritated due of these chemicals. Additionally, once you stop using them, the dandruff may return. People are becoming more interested in employing substances to treat dandruff as a result of these issues. Herbal components such as aloe vera, neem tea tree oil , aloe vera, hibiscus, fenugreek, reetha and shikakai are good for treating dandruff.

This review talks about what causes dandruff the ingredients that are used to treat it how these ingredients are made into products and how these products are tested.

**Keywords: dandruff, herbal shampoo, Malassezia, neem, tea tree oil, anti-dandruff formulation**

## **1. Introduction**

Nearly half of the world's population suffers from dandruff at some point. It occurs when the scalp's skin becomes flaky and irritated. Malassezia furfur is a species of fungus that is the primary cause of dandruff. On certain areas of the scalp, this fungus grows.

The common shampoos used to treat dandruff contain fungus-fighting chemicals. However, the scalp may get dry and irritated after using these shampoos for a while. Additionally, it may cause the hair to become tough. Make the dandruff return. People are searching for alternatives as a result of these issues. One alternative is to use herbal formulations.

## 2. Causes of Dandruff

The main reasons for dandruff are:

- Overgrowth, which is caused by Malassezia
- Too much oil on the scalp
- Not keeping the scalp clean
- Dry skin
- Stress
- Using harsh hair products
- A condition called seborrheic dermatitis

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## 3. Herbal Ingredients Used in Anti-Dandruff Formulations

### 3.1 Neem

Neem is an ingredient for treating dandruff. It has properties that can fight fungus, bacteria and inflammation. It can stop the growth of fungus. Reduce itching on the scalp.

### 3.2 Tea Tree Oil

Tea tree oil is good for treating dandruff. It has a component called terpinen-4-ol that can fight Malassezia species.

### 3.3 Aloe Vera

Aloe vera is good for soothing the scalp. It can reduce inflammation and moisturize skin.

### 3.4 Reetha

Reetha is an ingredient that can clean the scalp and make foam in herbal shampoos.

### 3.5 Shikakai

Shikakai is an ingredient that is used to clean and condition the hair and scalp.

### 3.6 Fenugreek

Fenugreek is good for reducing dryness on the scalp. It can help control dandruff.

### 3.7 Hibiscus

Hibiscus is good for nourishing the scalp. It can reduce irritation and flaking.

#### 4. Types of Herbal Anti-Dandruff Formulations

Herbal -dandruff products come in different forms, such as:

- Shampoo
- Hair oil
- hair pack
- Scalp gel
- Herbal lotion

Among these herbal shampoo is the most popular form. This is because it is easy to use and people like it.

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#### 5. Method of Formulation

Herbal extracts are usually made by:

- Decoction
- Maceration
- Extraction
- Hydroalcoholic extraction

These extracts are then mixed with natural ingredients that can clean the scalp preserve the product and make it smell good.

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#### 6. Evaluation Parameters

when we look at anti-dandruff formulations we check for several things. These things include pH, foam stability, how well they get rid of dirt, viscosity, surface tension how well they fight off microbes, skin irritation and how stable they're over time.

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#### 7. Advantages of Herbal Formulations

Herbal formulations have a lot of things going for them. They have side effects. The ingredients are natural. They are also economical and biodegradable. People tend to like them which's good for patient acceptance.. They can help reduce scalp irritation.

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#### 8. Assessment Criteria

When assessing anti-dandruff products, there are various evaluations to be made. pH, foaming action, cleaning action, viscosity, surface tension, antimicrobial properties, irritation to skin, and longevity of the formulation are examples of evaluations that can be made.

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## 9. Benefits of Herbal Formulations

There are many benefits to herbal-based formulations. Many have no side effects; there are few if any, synthetic chemicals in them; they are generally cost-effective and environmentally safe; people enjoy using them, making them accepted by patients; and they may aid in reducing scalp irritation.

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## 10. Conclusion

Synthetic products can be replaced with herbal anti-dandruff compositions. They are more secure to use. Neem tea tree oil, aloe vera, reetha, and shikakai are among the ingredients that work incredibly well against fungus. They have the ability to calm the scalp. Shampoos can be an effective long-term treatment for dandruff if they are correctly formulated and assessed. Herbal remedies for dandruff can help. Synthetic products can be replaced with herbal anti-dandruff compositions. They are more secure to use. Neem tea tree oil, aloe vera, reetha, and shikakai are among the ingredients that work incredibly well against fungus. They have the ability to calm the scalp. Shampoos can be an effective long-term treatment for dandruff if they are correctly formulated and assessed. Herbal remedies for dandruff can help.

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## Reference

1. Gadge SS, Wankhade SP, Tapare S, Kalaskar SM, Holey SD. Formulation and evaluation of polyherbal antidandruff shampoo. *J Pharmacogn Phytochem*. 2023;12(4):35-41.
2. Revansiddappa M, Sharadha R, Abbulu K. Formulation and evaluation of herbal anti-dandruff shampoo. *J Pharmacogn Phytochem*. 2018;7(4):764-767.
3. Zanke AA, Kharche S, Tikar V, et al. Formulation and evaluation of herbal anti-dandruff shampoo. *J Chem Health Risks*. 2025;15(3):xx-xx.
4. Rajpoot P, Singh P, Bhat R, Purohit D, Verma J. A review article formulation and evaluation of herbal anti-dandruff shampoo by neem and ritha. *J Adv Future Res*. 2025;3(11):677-685.
5. Formulation and evaluation of polyherbal antidandruff shampoo. *Sci Direct*. 2025;23(1):xx-xx.
6. Preparation and assessment of poly-herbal anti-dandruff formulation. *Open Dermatol J*. 2020;14:22-30.
7. CSIR-NBRI. Eucalyptus-based herbal oil for dandruff treatment. *Front Microbiol*. 2026;
8. Sharma A, Gupta R. Herbal shampoo formulations: a review. *Int J Cosmet Sci*. 2021;43(2):112-120.
9. Kumar V, Singh A. Neem as an antifungal agent in scalp disorders. *J Herbal Med*. 2020;18:100275.
10. Patel M, Shah D. Tea tree oil in dermatological formulations. *Int J Pharm Sci Rev Res*. 2019;58(1):45-50.
11. Rao P, Verma S. Aloe vera in cosmetic formulations. *J Cosmet Dermatol*. 2020;19(4):855-862.
12. Gupta N, Sharma P. Herbal surfactants in shampoos. *Pharm Innov J*. 2021;10(6):123-129.

13. Singh R, Yadav M. Traditional herbs for scalp disorders. *Ayu*. 2019;40(2):78-85.
14. Jain S, Mehta K. Antifungal herbal products in dandruff management. *Int J Trichology*. 2020;12(3):98-104.
15. Verma D, Kumar A. Polyherbal formulations in hair care. *Pharmacogn Rev*. 2018;12(23):55-61.
16. Patel R, Joshi S. Herbal shampoo formulation and evaluation. *Asian J Pharm Clin Res*. 2022;15(2):45-51.
17. Mishra S, Tiwari P. Role of reetha and shikakai in hair cleansing. *J Ethnopharmacol*. 2019;230:120-126.
18. Khan F, Ali S. Natural antifungal agents against *Malassezia*. *Mycoses*. 2021;64(5):505-512.
19. World Health Organization (WHO). Traditional herbal medicine guidelines. Geneva: WHO; 2021.

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